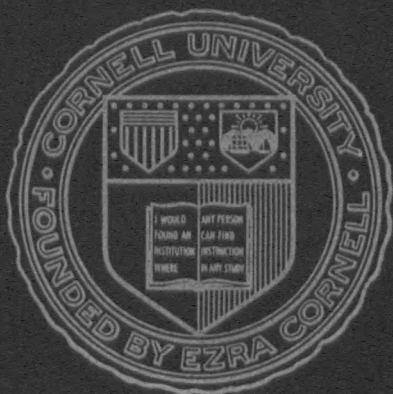


THE INSTITUTE REPORT



From the
VETERINARY VIRUS RESEARCH INSTITUTE
Cornell University, Ithaca, New York

September, 1971

Volume 21

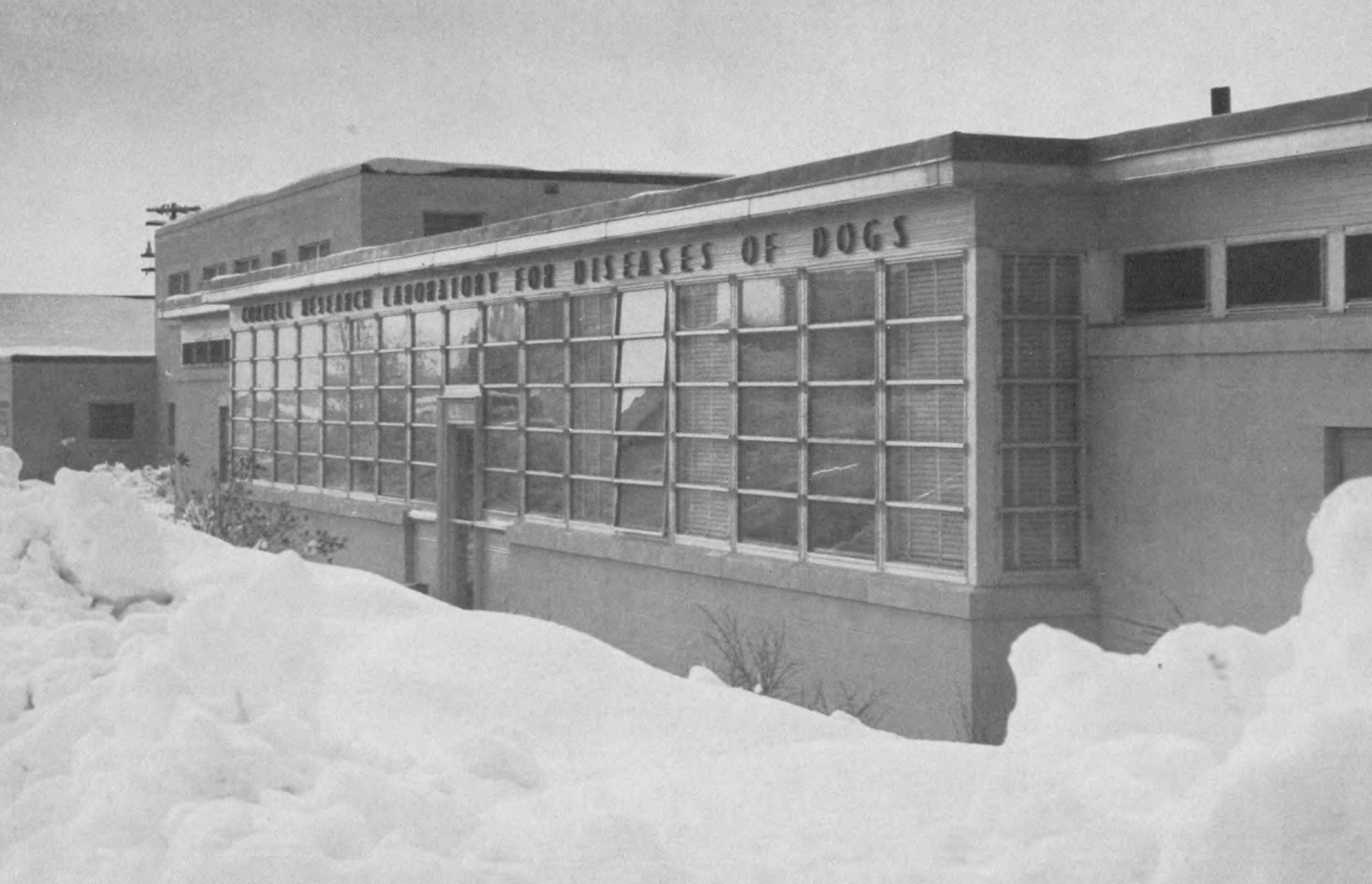
THE INSTITUTE REPORT



From the
CORNELL RESEARCH LABORATORY
FOR DISEASES OF DOGS
Cornell University, Ithaca, New York

September, 1971

Volume 21



CORNELL RESEARCH LABORATORY FOR DISEASES OF DOGS

DEC 7³ 1971

MESSAGE FROM THE DIRECTOR

THIS is our twenty-first annual report to all of those whose support makes possible work at the Cornell Research Laboratory for Diseases of Dogs. Although many of you have visited the Dog Laboratory from time to time, it is, of course, impossible for every one of you to do so. In order to describe briefly and informally some of the work that is being done here for dogs, this report to the donors is prepared.

At the time the Dog Laboratory began operation twenty-one years ago, the hope was expressed that it could become the first permanent research center for the study of problems of dogs. Buildings were designed and equipped specifically to allow modern and precise work by specialists trained in a number of different fields of science. At the present time, there are working in the Dog Laboratory specialists in bacteriology and virology, biochemistry, nutrition, ophthalmology, serology and immunology, and electron microscopy.

All important problems are planned in consultation with Dr. Robson, professor of biometrics and statistics, in order that statistically valid results will be obtained. This insures that a sufficient number of studies are performed and also prevents needless and expensive repetition of tests. The diversity of specialists, their findings, and training have allowed important correlations and comparisons to be made. Close cooperation is maintained by frequent staff meetings and consultations.



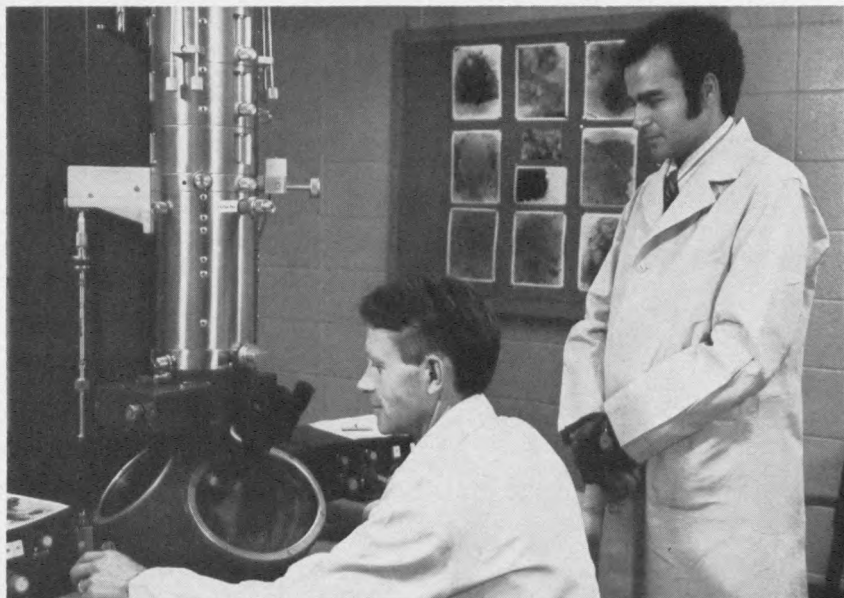
During the past winter, which was unusually severe in this section of New York State, maintenance problems occurred. The roof is being replaced and damage is being repaired.

Dr. Carmichael, a virologist, has worked in close cooperation with Dr. Lust, a biochemist, on some aspects of canine herpesvirus. After isolating the virus and growing it successfully in tissue culture, Dr. Carmichael noted that the virus did not multiply and infect new cells at temperatures of 104°F (40°C). Dr. Lust began biochemical studies of the mechanism concerned in temperature interference with herpesvirus multiplication.

Dr. Hugh Davies is assisting in some phases of the herpesvirus studies and in other problems. His preliminary findings, as yet unpublished and incomplete, seem to be of exceptional value to the understanding of viruses.

Dr. Lust has made progress on understanding some of the biochemical changes associated with hip dysplasia, especially those found in protein metabolism and collagen in the hip joints. This work was done in cooperation with other staff members of the Dog Laboratory and of the N. Y. State Veterinary College in order to include electron microscope studies, nutritional work, and X-ray findings. Osteoarthritis also is receiving attention.

Last year, in the popular press, there was much discussion concerning highly beneficial results of vitamin C on the common cold in man. Suggestions were made that it might prove equally useful for dogs with respira-



Dr. Max Appel and Dr. Gustavo Aguirre in the Richard King Mellon Laboratory for Electron Microscopy.

tory diseases. Dr. Sheffy, a nutritionist, and Dr. Appel, a virologist and electron microscopist, with the assistance of Dr. Carmichael, worked together in analysis, at cellular level, of the possible effects of vitamin C on respiratory viral infections of dogs. There were no detectable effects, either beneficial or adverse, to be noted in dogs from this particular vitamin.

Dr. Sheffy also has cooperated with staff members of the N. Y. State Veterinary College in studies concerning the need for calcium in canine nutrition. The conclusion was made that dogs should have adequate quantities of calcium in their diet.

The brain damage that can sometimes follow canine distemper infection in unvaccinated dogs is being analyzed by Dr. Appel to determine whether it is an autoimmune reaction or results from direct effects of distemper virus on the cells.

Dr. Appel is studying protection of dogs against infectious canine hepatitis, or, as it now is classified, canine adenovirus-type 1 (CAV-1). The relationships between CAV-1 and CAV-2 were studied by Dr. Marilyn Menegus as a basis for the Ph.D. degree in virology, under the direction of Dr. Appel and Dr. Norcross, an immunologist on the staff of the N. Y. State Veterinary College. CAV-2, which seems to be implicated in the infectious disease of dogs commonly known as "kennel cough", seems to be restricted to surface tissues that line the respiratory and intestinal tracts.

Some of this work has contributed to better understanding of the heterotypic immunological protection given against distemper by measles virus, which continues to be an important problem in our laboratory. Some of our original work has been repeated and confirms again that measles gives desirable protection against canine distemper when vaccinated as early as three weeks of age. Measles vaccine inhibits ability of distemper virus to multiply when measles is given before exposure to distemper occurs. Early protection is essential against distemper virus, because of the ability of this, and certain other viruses, to grow in various organs and cells of the body, and cause both immediate and future damage.

In a large kennel that has cooperated with our laboratory for many years, careful records have been kept of vaccinations, breedings, and other data of interest. Some of these dogs are now the third generation of puppies to have received measles vaccine at two to three weeks of age, followed, of course, by distemper vaccine at later dates. Maternal antibodies from measles vaccine that might occasionally be passed by a very young mother, bred before one year of age, to her first litter of puppies have caused no problems.

With grant funds for 1970-71 from the Seeing-Eye Foundation, Dr. Bistner, an ophthalmologist, in cooperation with Dr. Carmichael, began an analytical study of effects caused by CAV-1 (infectious canine hepatitis virus) on the eye. In addition to its recognized persistence in the kidney, CAV-1 was seen to cause pathology of the eye not fully understood heretofore, although the "white eye" often was noted as an indication that infection had occurred. The condition seems to be a sensitivity reaction between antibody and virus in the eye. Dr. Bistner has been requested to conduct a workshop for the American Society of Ophthalmology on visual impairment caused by CAV-1, with the thought that adenoviruses which infect human beings sometimes may cause a similar effect.

On June 1, 1971, Dr. Gustavo Aguirre became a member of the staff of the Dog Laboratory. He has specialized in ultrastructure of the eye, and will investigate eye defects of genetic or infectious origin. He also will cooperate with Dr. Carmichael and Dr. Bistner on problems of the eye caused by adenoviruses.

Dr. Lisle George, who served as a bacteriologist at the local hospital, has, during this past year as a senior in the N. Y. State Veterinary College, worked part of the time on canine brucellosis at the Dog Laboratory. He now has joined our staff as a graduate assistant under the direction of Dr. Carmichael, who originally isolated and identified *Brucella canis*. A new laboratory is being equipped for Dr. George to continue his work.



A section of the Control Laboratory is being remodeled to allow installation of x-ray equipment provided by the Allen Products Company, Inc. These new facilities will be used for studies in nutrition, hip dysplasia, and osteoarthritis.

In appreciation. For their exceptional interest in the Institute, we would like to express appreciation to the following supporters: Mr. Victor H. Anderson, Mr. and Mrs. Boyce Bailes, Dr. James P. Childress, Jr., Dr. Louis A. Corwin, Sr., Mr. Al Dick, Mr. and Mrs. Gaylord Donnelley, Mrs. N. Clarkson Earl, Dr. Lyman R. Fisher, Dr. Kenneth I. Gumaer, Mr. and Mrs. E. Roland Harriman, Mrs. Dorothy B. Howe, Mr. John Lafore, Mr. James A. Moffett, Dr. Arthur F. North, Jr., Mrs. Ann W. Olin, Mr. John M. Olin, Mr. Spencer T. Olin, Mrs. Vincent F. Wilcox, Mr. Robert W. Woodruff, and Mrs. Virginia Wooley.

More kennel clubs than before are supporting the Dog Laboratory, with increased recognition of the value of its work for dogs. With increased support, there is a corresponding increase in work.

Financial support. In order to establish an investigative unit, the general rule of laboratory management suggests employment of an investigator with four support personnel (ratio 1:4), at a cost of \$50,000 to \$60,000 per year. Our Laboratory has nine investigators, with a ratio of 1:3.3, at a cost of \$49,100 per unit. This lower ratio is a compliment to the efficiency and cooperation among the technical staff.

Income and expenditures are in acceptable balance.

INCOME

Contributions	\$186,342.00
Earnings of Endowment Funds	192,560.00
State of New York	117,475.00
Federal Grant	
(Terminated August 31, 1971)	37,500.00
	<hr/>
	\$533,877.00

EXPENSES

Salaries	\$336,756.00
Operational Costs	125,000.00
Building Repairs	46,000.00
	<hr/>
	\$507,756.00
*Surplus	\$ 26,121.00

*Surplus. To assure donors of funds for research for dogs that their funds will support such research, if not in the current year then afterwards, the Cornell University Board of Trustees made a provision for disposal of excess income as follows: "The Institute's income is in excess of its operating expense and the balance of the funds is added to the Institute's Endowment".

VIRUS RESEARCH INSTITUTE STAFF

- JAMES A. BAKER, B.S., M.S., Louisiana State University; D.V.M., Ph.D., Cornell. Professor of Virology and Director of the Institute.
BEN E. SHEFFY, B.S., M.S., Ph.D., Wisconsin. Caspary Professor of Nutrition and Assistant Director of the Institute.

ADMINISTRATION

- DUDLEY BAKER, (Mrs. James A. Baker), Louisiana State University, Editor of Publications. (Mrs. Baker was appointed to this position in 1951 and has served since that time without salary, as a personal contribution to the Institute.)
BRADLEY G. CORBITT, B.S., Cornell. Associate Director, University Development.
FLORENCE C. HUTH, Secretary.
MARY L. O'BRIEN, Account Clerk.
JEAN REINBOLD, B.S., Elmira College, Cornell. Administrative Aide.
ANN W. SIGNORE, Cornell. Secretary.
HADLEY C. STEPHENSON, B.S., D.V.M., Cornell. (Professor Emeritus of Veterinary Therapeutics and Small Animal Diseases), Veterinary Consultant.

MAINTENANCE

- CHARLES BAILOR, Animal Technician.
CLARENCE CAPLE, Farmer.
BERNARD L. CLARK, Animal Technician.
GERALD HILLER, Animal Technician.
ELDON MEAD, Mechanic.
PAUL ORTON, Technical Assistant.
ERIC G. SCHANO, Technical Assistant.
CARL SEARS, Experimentalist.
FRANK SEARS, Building Maintenance Supervisor.
NICHOLAS SWADER, Animal Technician.
LLOYD TOTMAN, Animal Technician.
MICHAEL VAUGHN, Animal Technician.
EDSON WHEELER, Senior Mechanic.

MICROBIOLOGY LABORATORIES

- LELAND E. CARMICHAEL, A.B., D.V.M., California; Ph.D., Cornell. John M. Olin Professor of Virology.
DOUGLAS H. DAVIES, B.V.S., Massey University, New Zealand. Graduate Research Assistant.
JEAN C. JOUBERT, Laboratory Technician.
VIVIAN MORGAN, Laboratory Assistant.
PAMELA F. NATOWSKY, B.A., Cornell. Laboratory Technician.
ELIZABETH POYER, Corning Community College. Laboratory Assistant.
DOUGLAS S. ROBSON, B.A., M.A., Iowa State; Ph.D., Cornell. Consultant in Statistics.
SUSAN RODMAN, B.A., University of North Carolina. Laboratory Technician.
ELIZABETH WHEELER, Laboratory Assistant.

SPECIAL LABORATORIES

Brucellosis Laboratory (Operating Funds Provided by the American Kennel Club):

LISLE GEORGE, B.S., Pennsylvania State University; D.V.M., Cornell. Research Assistant.

CAROL V. LIGHTSEY, B.S., Colorado State University. Laboratory Technician.

Colgate Division for Tissue Culture (Established originally by the late Miss Adele S. Colgate):

RANDA BEST, R.N., Robert Packer Hospital. Laboratory Technician.

FREDERICK A. HINMAN, B.A., Ithaca College. Laboratory Technician.

Ophthalmology Laboratories (Grant for operation provided for 1970-71 by Seeing-Eye Foundation):

Daynemouth Division (Established originally by the late Colonel and Mrs. Lee Garnett Day):

GUSTAVO D. AGUIRRE, V.M.D., M.Sc., University of Pennsylvania. Research Associate.

SAMUEL L. SLAUGHTER, Ithaca College. Laboratory Technician.

Giralda Division (Established originally by Mrs. Geraldine Rockefeller Dodge):

S. I. BISTNER, B.S., Rutgers; D.V.M., Cornell. Assistant Professor Comparative Ophthalmology, Dept. of Small Animal Medicine.

LENORA S. SAMMONS, B.S., Pennsylvania State University. Laboratory Technician.

Oswald R. Jones Laboratory (Established in honor of the late Dr. Oswald R. Jones):

MARILYN A. MENEGUS, B.S., College of St. Elizabeth; Ph.D., Cornell. (Requirements completed) Research Assistant. On August 1, 1971 became Virologist, St. Luke's Hospital, New York City.

MAX J. G. APPEL, D.V.M., University of Hannover; Ph.D., Cornell. Associate Professor of Microbiology.

SONDRA BURDA FIDLER, Auburn Community College. Laboratory Technician.

DEBRA SHERMAN, B.S., University of Pittsburgh; M.S., University of Chicago. Electron Microscope Technician.

Biochemistry Laboratory (Provided by Mr. John M. Olin):

GEORGE LUST, B.S., University of Massachusetts; Ph.D., Cornell. Assistant Professor of Biochemistry.

WALTER PRONSKY, B.S., Cornell. Laboratory Technician.

COOPERATING STAFF

(These doctors of veterinary medicine, physicians, and scientists in various parts of the United States are contributing much time and effort, without compensation, in order to help secure necessary information on which to base programs for control of infectious diseases.)

DAVID BLUMENSTOCK, B.S., M.D., Cooperstown, New York.

BALDWIN KING, JR., D.V.M., Albany, Georgia.

R. M. KUHN, D.V.M., Stuart, Florida.

WALTER D. MARTIN, JR., D.V.M., Albany, Georgia.

CLARENCE C. SAPP, JR., D.V.M., Albany Georgia.

THOMAS L. SHORE, D.V.M., St. Louis, Missouri.

H. GRADY YOUNG, D.V.M., Thomasville, Georgia.

LEON YOUNG, D.V.M., Thomasville, Georgia.

PUBLICATIONS FROM THE VETERINARY VIRUS RESEARCH INSTITUTE

Publications for the first ten years were listed in the Institute Report for 1960. Those for each following year were listed in its annual report. Since 1960, we have numbered articles consecutively. Some of the following numbers were listed in previous years' reports as "accepted" or "in press". They are repeated this year, with their original numbers, in order to record the proper volume and page references. Articles numbered 260-268 are those completed during the past year.

- (233) APPEL, MAX J. G. and GILLESPIE, J. H.: Canine distemper virus. Handbook for virus research. Ed. by Gard, Hallauer, and Meyer. Springer-Verlag, Vienna-New York. Accepted for publication, 1969.
- (242) APPEL, M. and PERCY, D. H.: SV-5-like parainfluenza in dogs. *J.A.V.M.A.*, 1970, 156, 1778-1781.
- (243) APPEL, M.: Distemper pathogenesis in dogs. *J.A.V.M.A.*, 1970, 156, 1681-1684.
- (245) BAKER, JAMES A.: Measles vaccine for protection of dogs against canine distemper. *J.A.V.M.A.*, 1970, 156, 1743-1746.
- (248) CARMICHAEL, LELAND E.: *Herpesvirus canis*: Aspects of pathogenesis and immune response. *J.A.V.M.A.*, 1970, 156, 1714-1721.
- (249) CARMICHAEL, L. E. and KENNEY, R. M.: Canine brucellosis. The clinical disease, pathogenesis, and immune response. *J.A.V.M.A.*, 1970, 156, 1726-1734.
- (251) HOUSE, JAMES A. and BAKER, J. A.: Bovine herpesvirus IBR-IPV. The antibody virus neutralization reaction. *Cornell Vet.*, 1971, 61, 320-335.
- (252) HOUSE, J. A.: Bovine herpesvirus IBR-IPV: Strain differences. *Cornell Vet.*, 1971, In press.
- (257) LUST, GEORGE: Hip dysplasia in dogs. *Current Veterinary Therapy*, IV, ed. R. W. Kirk, W. B. Saunders Co., Philadelphia, 1971, 466.
- (259) SHEFFY, BEN E.: Pediatric nutrition. *Current Veterinary Therapy*, IV, ed. R. W. Kirk, W. B. Saunders Co., Philadelphia, 1971, 58-62.
- (260) APPEL, M., PICKERILL, P. A., MENEGUS, M., PERCY, D. H., PARSONSON, I. M., and SHEFFY, B. E.: Current status of canine respiratory disease. *Gaines Veterinary Symposium*, 1970, 20, 15-23.
- (261) BAKER, J. A.: Comments on feline pneumonitis. *J.A.V.M.A.*, 1971, 158, 941-943.
- (262) BAKER, J. A. and BAKER, DUDLEY D.: Rinderpest. *Encyclopaedia Britannica*, 1971, p. 339.
- (263) BAKER, DUDLEY D.: Canine brucellosis. *Laboratory Report*, 1971, Series 2, No. 1.
- (264) LUST, G. and CARMICHAEL, L. E.: Characterization of events during suppressed canine herpesvirus replication at elevated temperatures. Submitted to the *Jour. Infect. Dis.*, 1971.
- (265) MENEGUS, MARILYN A.: Similarities and differences between two canine adenoviruses. Thesis for the Ph.D. Degree, Cornell University, 1971.
- (266) PICKERILL, PHILIP A.: Comments on epizootiology and control of canine brucellosis. *J.A.V.M.A.*, 1970, 156, 1741-1742.
- (267) SHEFFY, B. E., CARMICHAEL, L. E., and APPEL, M.: Canine nutrition with special emphasis on the role of vitamin C. *Gaines Veterinary Symposium*, 1970, 20, 30-34.
- (268) VOLENEC, FRANK J., SHEFFY, B. E., and BAKER, J. A.: Immunobiologic heterotypic activity associated with viral and soluble components of bovine virus diarrhea virus. Accepted by *Arch. ges. Virusforsch.*, 1971.

ACKNOWLEDGMENTS

The Cornell Research Laboratory for Diseases of Dogs gratefully acknowledges gifts received from our contributors from September 1, 1970 to September 1, 1971 in support of our research program.

IN MEMORIAM

Mr. Alden S. Blodgett
Mrs. Leonard W. Bonney
Mrs. Marion Champers
Dr. Clayton E. DeCamp
Mr. Robert "Deacon" Doubleday
Mr. Charles W. Engelhard, Jr.
Mrs. Robert A. Field
Dr. Benjamin J. Finkelstein
Dr. Thomas E. Hickey
Mrs. Jean Hunsicker
Mr. Merlin D. Jones
Dr. Oswald R. Jones
Mr. Werner E. Josten
Miss Marie J. Leary
Dr. Arthur Lipman

Dr. Harry Lutvack
Dr. Robert S. MacKellar, Sr.
Mrs. Mary E. Martin
Dr. Marie Koenig Olson
Mr. Herman J. Palmer
Mrs. Frederick Shaw
Miss Judith Shearer
Mrs. Claire Siegel
Miss Ruth A. Slaughter
Mr. George R. Soreghen
Dr. Victor Spevack
Dr. M. Wallace Sullivan
Mr. Arelyn Thurston
Mr. A. G. Van Shaick

INDIVIDUALS

Mrs. Grace E. Allen
(In Memory of Bonnie and John)
Miss Mildred Allen
Mr. Victor H. Anderson (In Memory of
Stormson's Opal von Gerber)
Anonymous (1)
Miss Rosemarie Antonelli
Mr. Francis R. Appleton, Jr.
Mrs. Leon E. Arliss
Mr. Frank C. Ash
Mr. William Asher
Mrs. Esther W. Backus
Mrs. Stevens Baird
Mrs. Barbara Baker
Mrs. Dudley Baker
Mr. L. A. Baker
Mrs. Selwyn G. Bandes
Miss Judith Bard
Mrs. Barbara Barty-King
Mr. & Mrs. Stephen D. Bechtel
Mrs. Henry Bender
Mrs. Mona Berger
Mr. & Mrs. Leonard K. Berkowitz
Mr. Henry Berol
Mr. & Mrs. Thomas E. Berry
Mr. & Mrs. Walter A. Berry
(In Memory of "Missy" and "Dolly")
Mrs. Rodney Bledsoe
(In Memory of Miss Judith Shearer)
Mr. & Mrs. Fred Bondi, Jr.
Dr. & Mrs. Clifford M. Boone
Major Doris I. Borgwardt
Mr. & Mrs. Albert C. Bostwick

Mr. G. Miller Braed
Mrs. Virginia Branch
(In Memory of "Bullet")
Mrs. Marjorie M. Brandt
Dr. & Mrs. Eben Breed
Mr. & Mrs. Thomas Brewer
Mr. & Mrs. Alanson C. Brown, III
Mrs. Marilyn Brusie
(In Honor of Doctors Henry E.
Grossman and Gary M. Cane)
Mrs. H. Driscoll Cain
Mr. Lyman L. Campbell
Mr. & Mrs. Andrew G. Carey
(In Memory of "Carino" and "Tesoro")
Major & Mrs. Rex V. Carr
Mrs. Charles Z. Case
Mr. E. R. Champion
Mrs. Stanley Chapple
Mr. & Mrs. Walter N. Chimel
Mrs. Everett M. Clark
Mr. John B. Clark
Mr. William W. Cleland
Mr. & Mrs. James A. Cole
Mrs. Carl S. Conlon
Mr. & Mrs. John H. Connors
Mr. N. Cote
Mr. & Mrs. Robert Crafts
Mrs. Francis V. Crane
Mrs. Richard E. Danielson
Mr. & Mrs. Paul L. Davies, Jr.
Miss Mertie Van B. Davis
Mrs. Ralph DeStefano

INDIVIDUALS (Cont.)

- Mr. John E. Dizer
 Mr. & Mrs. Oliver W. Dobson
 (In Honor of Dr. Chester Hartenstein)
 Mr. & Mrs. Gaylord Donnelley
 Mr. Francis H. Dorsheimer
 Mrs. Charles Forrest Dowe
 Dr. John W. Draper
 Miss Nancy-Carroll Draper
 Mrs. C. P. Du Bose, Jr.
 Mrs. Emily T. duPont
 Miss Patricia duPont
 Mrs. Richard C. duPont
 Mrs. N. Clarkson Earl, Jr.
 Mrs. Charles F. Elmes
 Mrs. Charles A. Elsborg
 Mr. & Mrs. John E. Erickson
 (In Memory of Dr. M. Wallace Sullivan)
 Mr. & Mrs. Raymond F. Evans
 Mrs. E. Eugene Eves, II
 Mr. Samuel E. Ewing, III
 Mr. Gilbert W. Fitzhugh
 Mrs. Edward C. Fleischan
 Mrs. Walter L. Fleisher, Jr.
 Mr. & Mrs. George H. Flinn, Jr.
 Miss Gladys Freeman
 (In Honor of Dr. Kenneth I. Gumaer)
 Mr. & Mrs. Stephen J. Friedman
 Mrs. Paul E. Gardner
 Miss Catherine Davis Gauss
 (In Memory of Dr. Oswald R. Jones)
 Miss Elaine Garland
 Mrs. Gerald E. Genan
 Mrs. Frances M. Gerdes
 Miss Doris Giles
 Mr. J. D. Godkin
 Mr. Norton L. Goldsmith
 Miss Mary Gould
 Mr. Lawrence B. Green
 Miss Joan C. Grossman
 (In Memory of Thenderin O'Toole)
 Mrs. John B. Hannum, III
 Mr. & Mrs. E. Roland Harriman
 Mr. & Mrs. Richard P. Hart
 Mrs. Dona E. Hausman
 Mr. & Mrs. Charles F. Hendee
 Mrs. Allan M. Hirsh
 (In Memory of Mrs. Frederick Shaw)
 Mrs. Allan M. Hirsch
 Miss Marie M. Hoffman
 Mr. Carl Holmes
 Mrs. Robert G. Holscher
 Mr. Arthur M. Horowitz
 Mrs. Corning Howard
 Mrs. Dorothy B. Howe
 Mrs. Wendell T. Howell
 Mr. Denison B. Hull
 Mr. & Mrs. Gilbert W. Humphrey
 Mr. & Mrs. James J. Hunter
 Mr. David Iberri
 Mr. Austin S. Igleheart
 Mr. J. Jackowicz
 Mr. Andrieus A. Jones
 Mr. & Mrs. Werner E. Josten
 Mr. & Mrs. Leland O. Kew
 Miss Barbara A. Kirchner
 Mr. & Mrs. Donald Kirk
 Mr. David Klee
 Mr. Charles Knapp
 (In Memory of "Rex")
 Mr. & Mrs. Thomas Knott
 Mrs. Seymour H. Knox
 Dr. & Mrs. Thaddeus L. Kostrubala
 (In Memory of Dr. M. Wallace Sullivan)
 Mrs. H. Peter Kriendler
 Miss Mary Anne Kustra
 (In Honor of Mr. & Mrs. Donald Dube)
 Mrs. William S. Ladd
 Mrs. Margaret C. Lane
 Mrs. William K. Laughlin
 Miss Marie J. Leary
 Dr. Clark Lemley
 Mrs. John H. Livingston
 Mrs. Manuel C. T. Llop
 Mrs. Louise M. Loeb
 Mrs. Albert P. Loening
 Mrs. William H. Long
 (In Memory of Dr. Thomas E. Hickey)
 Mrs. Stanford C. Mallory
 Mr. Rushmore H. Mariner
 Mr. and Mrs. Forrest E. Mars
 Mrs. Margot W. Marsh
 Miss Helena Martinkewiz
 Mrs. Margaret K. Maxwell
 Mr. & Mrs. Julien H. Mayer
 Mrs. Mary R. Mayer
 Mrs. Marie E. McCorgay
 Miss Betty Jane McCracken
 Mrs. Lyda M. McFarland
 Mr. Donald McMaster
 Mr. John A. Megargee
 Miss Martha Melekov
 Mr. Albert Merkle
 Mr. Thomas W. Merritt
 Mr. Richmond F. Meyer
 Mrs. Eugene Meyers
 Mr. John Meyers
 Mr. James A. Moffett
 Mr. Samuel Molien
 (In Honor of Dr. Frank E. McClelland and Dr. Robert B. McClelland)
 Mrs. Evelyn Monte
 Mrs. H. S. Morgan
 Mrs. Holly Moser
 Mr. Paul Mountcastle
 Mr. C. Edward Murray, Jr.

INDIVIDUALS (Cont.)

- Mr. & Mrs. Robert E. Myrshrahl
 Mr. & Mrs. Frank J. Nelson
 Mr. W. L. Newhall
 Mrs. Harry I. Nicholas, Jr.
 Mr. & Mrs. H. W. Nichols, Jr.
 Miss Laura Niles
 Mrs. Emily A. Nordfeldt
 (In Honor of Dr. Arthur F. North, Jr.)
 Mr. Jean Oging
 Mr. John M. Olin
 Mr. & Mrs. Spencer T. Olin
 Mrs. Edward L. Oppenheimer
 Mr. & Mrs. Erwin R. Palmer
 (In Memory of Dr. M. Wallace Sullivan)
 Mrs. C. H. Parker
 Mr. & Mrs. Paul E. Parks
 Mr. & Mrs. A. Wells Peck
 Mrs. Paul G. Pennoyer
 Mrs. J. Gordon Perlmutter
 Mrs. Susan D. Phillips
 Miss Joan Pierce
 Mrs. R. Stuyvesant Pierrepont
 Mrs. Collier Platt
 Miss Dawn Pohlman
 (In Honor of Dr. Irving Zimmerman)
 Mr. Bernard Polak
 Mrs. Richard J. Potts
 Mrs. Ralph Pulitzer, Jr.
 Miss Margaret K. Quarrie
 Miss Alma L. Randel
 Mr. Duncan H. Read
 Dr. Harvey Resnick
 Major General R. C. Reynolds
 Dr. & Mrs. Eric L. Robison
 (In Memory of Dr. M. Wallace Sullivan)
 Mrs. Erma F. Rothhaus
 (In Honor of Dr. Edward Grano, Jr.)
 Mrs. Lanny J. Russow
 Dr. Nelson B. Sackett
 (In Memory of Dr. Oswald R. Jones)
 Mr. & Mrs. Stephen S. Sager
 Miss Doris M. Samuelson
 Mr. & Mrs. J. R. Schneider
 Dr. & Mrs. Rolf Schnorf
 Mr. & Mrs. Eugene F. Schroerluke
 (In Memory of "Jiggs, Spotty, Ponchie, Jolie and Wendy")
 Dr. & Mrs. Jerome M. Schweitzer
 Mrs. Marion duPont Scott
 Mrs. Roger T. Scott
 Mrs. Myron Sempliner
 Mr. & Mrs. Fred Sharp
 Mrs. Allan Shelden
 Mrs. J. N. Shellehamer
 (In Memory of "Baron Von Schultz")
 Mr. & Mrs. Harry Singer
 Mr. & Mrs. Bruce Smallridge
 Mr. Albert Smith
 Mrs. R. Gilman Smith
 Mrs. Anne H. Soreghen
 (In Memory of Mr. George R. Soreghen)
 Staff of the Stoneledge Animal Hospital
 (In Memory of Dr. M. Wallace Sullivan)
 Mr. & Mrs. George W. Stebbins
 Mr. Franz T. Stone
 Mr. Adolph A. Storey
 Mr. & Mrs. William Sturm
 (In Honor of Dr. Robert Ferber)
 Mr. Judson L. Streicher
 Mrs. Charles G. Terry
 Mr. John H. Thompson
 Mrs. Loulie T. Thompson
 Mrs. Esther duPont Thouron
 Mr. & Mrs. W. J. Tierney and Family
 (In Memory of "Red Mike")
 Mrs. J. Robert Tinsley
 (In Memory of Miss Judith Shearer)
 Mrs. John W. Tokarczyk
 Miss Susan Frances Train
 Mr. & Mrs. Charles E. Treman, Jr.
 Mrs. S. Badenhop Tucker
 Mr. & Mrs. Peter Van Brunt
 Dr. William D. Vande Grift
 Mr. William P. Wadsworth
 Mr. & Mrs. Robert Wallace
 Miss Sylvia Warren
 Mr. Samuel B. Webb
 Mr. John W. Weber, Jr.
 Mrs. F. Carrington Weems
 Mr. Robert G. Wehle
 Mrs. Louis C. Weisman
 Mrs. Vincent F. Wilcox, Jr.
 Mrs. Carolyn R. Wilson
 Mrs. William W. Wimer, III
 Mrs. Anne H. Winston
 Mr. Robert Winthrop
 Mr. & Mrs. Leon Wolf
 Mr. Robert W. Woodruff
 Mrs. Ellen Woods
 Mrs. Virginia Wooley
 Dr. William N. Young, Jr.

VETERINARIANS

We are especially pleased at the prompt response from members of the veterinary profession to a recent suggestion from Dr. Stephenson that they pledge support for one of the units of the Laboratory. Their names, designated in the following list by the initials R.P. (Research Partner), will be inscribed permanently upon a permanent plaque in the Library of the Institute, as are those of our founders and long-time supporters.

Dr. Morton Aaronson	Dr. Elihu B. Boroson
Dr. Russell N. Abbott	Dr. Stanton E. Bower
Dr. Leon Abrevaya	Dr. Dorothy E. Bradley
Dr. William H. Adolph	Dr. Eric R. Braun, Jr.
Dr. Stanley M. Aldrich	Dr. James C. Breightenstein
Dr. George R. Alfson	Dr. James A. Brennan
Dr. Robert B. Altman	Dr. John J. Brennan, Jr.
Dr. Peter I. Amsher	Dr. & Mrs. Walter S. Briggs
Dr. David F. Anderson	Dr. Herbert A. Brinkman
Dr. John Andresen	Dr. Garrison M. Brown
Dr. Elmore L. Andrews, Jr.	Dr. Philip R. Brown
Anonymous (1)	Dr. Robert D. Brown
Dr. & Mrs. Jacob Antelyes	Dr. & Mrs. Robert F. Brown
Dr. & Mrs. Elstratios Apostolides	Dr. & Mrs. Thomas F. Brown
Dr. & Mrs. Eric G. Archer	Dr. Ronald H. Bruce
Dr. Ross H. Arnett	Dr. Maynard L. Bryant
Dr. Jeroham Asedo	Dr. & Mrs. Donald F. Buckley
Dr. Leroy N. Atkinson	Dr. William C. Buell
Dr. Harvey S. Atlas	Dr. Robert L. Burgess
Dr. DeWitt T. Baker	Dr. Jack Burke
Dr. & Mrs. Gerald H. Bandes	Dr. Dale E. Bush
Dr. Arthur A. Barry	Dr. William P. Cadwallader, Jr.
Dr. Richard R. Basom	Dr. Joseph Campbell
Dr. Roger W. Batchelder	Dr. Robert C. Campbell
Dr. William E. Bates	Dr. Guernsey W. Cangi
Dr. Walter O. Bauer	Dr. M. Gregory Carbone
Dr. Alan C. Baum	Dr. Arnold D. Carey
Dr. Patrick H. Baymiller	Dr. Don J. Carren
Dr. Laverne M. Beakman	Dr. Robert F. Case
Dr. Donald G. Beck	Dr. Eugene C. Ceglowski
Dr. Milford E. Becker	Dr. Jean R. Ceglowski
Dr. David B. Bender	Dr. Albert Chafets
Dr. J. Keith Benedict	Dr. & Mrs. Kenneth W. Chamberlain
Dr. Jane W. Benson	Dr. Arthur S. Charles
Dr. Kenneth W. Benson	Dr. & Mrs. James P. Childress, Jr.
Dr. Clarence F. Bent	Dr. Alan M. Chrisman
Dr. Israel Berkowitz	Dr. Edward F. Christensen
Dr. & Mrs. Meyer Berliner	Dr. Janet E. Christensen
Dr. Lewis H. Berman	Dr. Donald K. Christian
Dr. George J. Beyer	Dr. Arthur W. Christopher
Dr. Theodore J. Beyer	Dr. Nam Y. Chung
Dr. Gerald Bilinsky	Dr. Stanwood B. Churchill
Dr. Edwin E. Blaisdell	Dr. Robert E. Clark
Dr. Jack Bloch	Dr. Stillman B. Clark, III
Dr. Frank Bloom	Dr. Edwin P. Clement
Dr. & Mrs. Morris E. Blostein	Dr. Richard H. Coburn
Dr. Howard Bo	Dr. Phillip B. Cohen
Dr. Crager J. Boardman	Dr. Elvin G. Cole
Dr. William Boardman	Dr. & Mrs. Norman Cole
Dr. Bruce T. Boehringer	Dr. Donald K. Collins
Dr. Richard A. Boese	Dr. Elizabeth J. Collins
Dr. Sidney Bogen	Dr. A. Stanton Colvin
Dr. Elihu Bond	Dr. Carolyn Foster Comans

VETERINARIANS (Cont.)

- Dr. Edmonds A. Comans
 Dr. Clarence C. Combs, Jr.
 Dr. John B. Combs
 Dr. Margaret Combs
 Dr. Lawrence H. Conlon
 Dr. & Mrs. Miller A. Cook
 Dr. Doyle B. Cooper
 Dr. & Mrs. Harold K. Cooper
 Dr. Neil P. Corselius
 Dr. Louis A. Corwin, Sr.
 Dr. Paul J. Corwin
 Dr. David Covitz
 Dr. W. Harvey Cowan
 Dr. Gordon A. Crafts
 Dr. James C. Crandall
 Dr. Mark R. Crandall
 Dr. Douglas B. Crane
 Dr. & Mrs. John E. Crawford
 Dr. Donald H. Crispell
 Dr. & Mrs. Harold J. Cummings
 Dr. Robert J. Cyrog
 Dr. Thurston Dale
 Dr. Simon P. Dansky
 Dr. Douglas S. Darlington
 Dr. William P. Darrow
 Dr. Arthur C. Davidson
 Dr. James C. Davidson
 Dr. William A. Davidson
 Dr. Forrest H. Davis
 Dr. F. Langdon Davis, Jr.
 Dr. Robert E. Decher
 Dr. Douglas G. Dedrick
 Dr. Jonathan P. Deitchman
 Dr. & Mrs. Alexander deLahunta
 Dr. Ray O. Delano
 Dr. William A. Denny
 Dr. Henry J. Deutsch
 Dr. Lewis R. Diamond
 Dr. Daniel DiBitetto
 Dr. Herbert C. Dietrich
 Dr. Myron L. Dimon
 Dr. Sol Dolinger
 Dr. Michael J. Donahue
 Dr. Paul J. Doran
 Dr. Sam H. Dorfman
 Dr. Michael E. Doty
 Dr. Arthur B. Douglas
 Dr. Andrew M. Draper
 Dr. Donald R. Drew
 Dr. Richard H. Drumm
 Dr. Daniel Duberman
 Dr. G. Clayton Dudley
 Dr. Rudolph Dueland
 Dr. & Mrs. Charles E. Durland
 Dr. & Mrs. Cleon W. Easton
 Dr. & Mrs. George W. Eberhart
 Dr. Milton F. Ebersol
 Dr. N. Joel Edwards
 Dr. Edward R. Eisner
 Dr. Ralph T. Ellison
 Dr. Reid B. England
 Dr. & Mrs. Joseph B. Engle
 Colonel Burt English
 Dr. Donald Q. Eno
 Dr. Alan B. Epstein
 Dr. Jeffrey B. Faivus
 Dr. Patricia J. Fales
 Dr. Roger R. Fales
 Dr. & Mrs. Harry J. Fallon
 Dr. Robert F. Featherstone
 Dr. & Mrs. Gilbert J. Feldman
 Dr. Stanley Fellenbaum
 Dr. Leonard Ferber, R.P.
 Dr. Robert Ferber, R.P.
 Dr. Joseph Ferris
 Dr. Kenton R. Ficks
 Dr. & Mrs. Lincoln E. Field
 Dr. Robert A. Field
 Dr. & Mrs. Myron G. Fincher
 Dr. Martin N. Fineman
 Dr. Ralph T. Fireoved
 Dr. Lendall K. Firth
 Dr. Richard A. Fish
 Dr. James J. Flannery
 Dr. & Mrs. Robert W. Fleischman
 Dr. Charles E. Fletcher
 Dr. & Mrs. Dana D. Ford
 Dr. Donald C. Ford
 Dr. & Mrs. M. Taher Fouad
 Dr. Lorraine A. Fournier
 Dr. Wayne J. Fowles
 Dr. Donald C. Fox
 Dr. Ira I. Franklin
 Dr. Robert W. Freedman
 Dr. Norman T. Freid
 Dr. Martin H. Fremont
 Dr. & Mrs. Herbert R. French
 Dr. & Mrs. Arthur J. Friderici
 Dr. & Mrs. Kenneth S. Friderici
 Dr. & Mrs. Charles M. Frumerie
 Dr. John H. Fudens
 Dr. & Mrs. Howard E. Fuller
 Dr. Kenneth R. Gadd
 Dr. Leroy V. Gallagher
 Dr. John M. Gambardella
 Dr. Michael H. Gardner
 Dr. & Mrs. Stanley E. Garrison
 Dr. Donald C. Gay
 Dr. Jerome M. Gigliotti
 Dr. Thomas W. Gigliotti
 Dr. Richard J. Gillespie
 Dr. Roger E. Gillett
 Dr. Harry M. Glass
 Dr. Stanley Glick
 Dr. & Mrs. William E. Glindmyer
 Dr. John D. Goebel
 Dr. Abie Goldberg
 Dr. Ephraim Golden

VETERINARIANS (Cont.)

- Dr. Lewis A. Goldfinger
 Dr. Tevis M. Goldhaft
 Dr. & Mrs. Norman H. Goldstein
 Dr. Robert C. Gonser
 Dr. & Mrs. George A. Goode
 Dr. & Mrs. Laurence W. Goodman
 Dr. & Mrs. L. William Goodman
 Dr. Jack A. Gorelick
 Dr. & Mrs. James W. Goris
 Dr. Allen C. Goss
 Dr. James A. Gourlay
 Dr. William J. Grace, Jr.
 Dr. & Mrs. Richard C. Grambow
 Dr. Edward Grano, Jr.
 Dr. Myles A. Greenburg
 Dr. C. Frederick Greene
 Dr. Murray Greensaft
 Dr. Clinton M. Greenwood
 Colonel Russell F. Greer
 Dr. Richard C. Groff
 Dr. & Mrs. Henry E. Grossman, R.P.
 Dr. Roger Grossman
 Dr. & Mrs. Harris H. Groten
 Dr. Melvin N. Grove
 Dr. Martin A. Gruber
 Dr. Roger W. Grundish
 Dr. Marguerite B. Gulick
 Dr. William C. Gulick
 Dr. Kenneth I. Gumaer
 Dr. Clayton H. Gurley
 Dr. Albert J. Gutknecht
 Dr. William F. Haenel
 Dr. & Mrs. George E. Hahn
 Dr. Gilbert N. Haigler
 Dr. William J. Haighfleigh
 Dr. & Mrs. Richard L. Hall
 Dr. Patricia O'Connor Halloran
 Dr. Robert S. Halperin
 Dr. George D. Halpin
 Dr. George A. Hamilton
 Dr. David B. Hammond
 Dr. David E. Harling
 Dr. Howard Harmon
 Dr. Joseph W. Harrison
 Dr. & Mrs. Chester Hartenstein
 Dr. Richard A. Hartkoff
 Dr. John A. Hauge
 Dr. N. Bruce Haynes
 Dr. Lewis W. Heavner, Jr.
 Dr. Max Helfand
 Dr. Harry J. Helsel
 Dr. Richard P. Henry
 Dr. & Mrs. William H. Herbold, III
 Dr. Douglas R. Hergren
 Dr. Samuel E. Herman
 Dr. Bernard S. Hersshorn
 Dr. Frederick F. Hess
 Dr. Jerome B. Higgins
 Dr. Leslie S. Hirsch
- Dr. Howard A. Hochman
 Dr. Charles Hodder
 Dr. James H. Hoffmire
 Dr. & Mrs. Herbert R. Holden
 Dr. David I. Hollenbeck
 Dr. Beverly A. Holt
 Dr. Jean Holzworth
 Dr. Clifford H. Hoppenstedt
 Dr. H. Dean Hopper
 Dr. Michael P. Horan
 Dr. & Mrs. James A. House
 Dr. Courtland R. Howard
 Dr. Nathan Z. Howard
 Dr. W. Morton Howe
 Dr. William L. Huffard
 Dr. Donald V. Hughes
 Dr. Charles F. Hults
 Dr. & Mrs. Samuel Hutchins, III
 Dr. Peter A. Huyler
 Dr. Jack W. Hylton
 Dr. Jay D. Hyman
 Dr. Donald Icken
 Dr. Walter J. Ingraham
 Dr. Raymond T. Jackson
 Dr. Stanley E. Jacobs
 Dr. Frank Jaras
 Dr. John R. Jeffrey
 Dr. DuBois L. Jenkins
 Dr. Robert F. Jewett
 Dr. Dan E. Johns
 Dr. & Mrs. Herbert Jonas
 Dr. Robert E. Jones
 Dr. Ruth E. Jones
 Dr. Stuart V. Jones
 Dr. & Mrs. Wallace G. Jones
 Dr. George Jordon
 Dr. Walter F. Juliff
 Dr. Paul L. Kahl
 Dr. & Mrs. Lawrence A. Kahn
 Dr. Abe B. Kamine
 Dr. John F. Kandl
 Dr. Joshua M. Kaplan
 Dr. Meyer Kaplan
 Dr. Warren J. Kaplan
 Dr. William Kaplan
 Dr. & Mrs. Leo R. Karmin, R.P.
 Dr. Gerald L. Kasen
 Dr. Gerard A. Kaufman, Jr.
 Dr. Robert P. Kaufman
 Dr. William H. Keaton
 Dr. Lawrence T. Keenan
 Dr. John W. Kendrick
 Dr. W. Duane Kennedy
 Dr. Paul D. Kennett
 Dr. Sydney M. Kessler
 Dr. Kenneth L. Kiehle
 Dr. Anne Gott King
 Dr. William P. King
 Dr. James R. Kinney

VETERINARIANS (Cont.)

Dr. John M. Klar
Dr. & Mrs. Abraham H. Kleinfeld
Dr. & Mrs. Paul H. Knapp
Dr. William A. Knapp
Dr. Robert P. Knowles
Dr. William N. Konde
Dr. Harold Kopit
Dr. & Mrs. Harold Kopp
Dr. Moe Kopp
Dr. Arthur J. Kowalk
Dr. Irene Kraft
Dr. Jeffrey N. Krakowsky
Dr. Walter P. Kreutter
Dr. Lester D. Krohn
Dr. Arthur I. Kronfeld
Dr. Kenneth Kronman
Dr. Emil F. Kuhn
Dr. & Mrs. Joel N. Kutz
Dr. Jeffrey A. LaCroix
Dr. James A. Langman
Colonel Norbert A. Lasher
Dr. David E. Lawrence
Dr. Michael P. Lawrence
Dr. Thomas H. Lawrence
Dr. John R. Leahy
Dr. Irwin J. Lebish
Dr. Edwin Leonard
Dr. Robert J. Leonpacher
Dr. Murray M. Lerner
Dr. Allan A. Leventhal
Dr. Joseph I. Leveque
Dr. Nancy W. Leveque
Dr. Lawrence Leveson
Dr. Bernard G. Levine
Dr. Leonard R. Levine
Dr. George Levy
Dr. Anson C. Lewis
Dr. Bertram Lewis
Dr. Gilbert Lewis
Dr. Jordan Lewis
Dr. Norman F. Lewis
Dr. Joseph J. Libra
Dr. Leo L. Lieberman
Dr. Ralph B. Lind
Dr. Arthur D. Lindbloom, Jr.
Dr. Paul Lindenmaier
Dr. & Mrs. Lionel W. Lindsey
Dr. & Mrs. Bernard Lipman
Dr. Alan A. Livingston
Dr. Jeanne Newbecker Logue
Dr. Earl W. Lohmier
Dr. Robert A. Lopez
Dr. Joan Peterson Lorenzen
Dr. Thomas J. Love
Dr. Richard C. Lunna
Dr. Seymour Lustig
Dr. Donald R. Lynch
Dr. Robert E. Lynk
Dr. Robert M. Lynn

Dr. Alexander D. MacCallum
Dr. Janet Meade MacCallum
Dr. Robert S. MacKellar, Jr.
Dr. Edwin D. Mackey
Dr. & Mrs. Edward A. Majilton
Dr. & Mrs. Wilber C. Maker
Dr. & Mrs. Peter L. Malnati
Dr. Robert V. Manning
Dr. & Mrs. Myron W. Marder
Dr. Henri C. Marsh
Dr. Donald B. Martin
Dr. Robert S. Martin
Dr. C. T. Mason
Dr. Walter J. Matuszak
Dr. George E. Maurice
Dr. Robert A. Mavian
Dr. Ronald F. Mayhew
Dr. John L. McAuliff
Dr. Douglas F. McBride
Dr. John B. McCarthy
Dr. John F. McCarthy
Dr. Frank E. McClelland, Jr.
Dr. Robert B. McClelland
McClelland Veterinary Hospital
Dr. John E. McCormick, R.P.
Dr. Richard K. McEvoy
Dr. & Mrs. Tim McKenna
Dr. Vincent E. McKenna
Dr. Donal B. McKeown
Dr. W. Kenneth McKersie
Dr. Robert T. McLean
Dr. Mac H. McMillan
Dr. Homer F. McMurray
Dr. Warren W. Mead
Dr. Morton Meisels
Dr. & Mrs. Raphael Meisels
Dr. Edward C. Melby
Dr. Henry C. Melius
Dr. Thomas W. Melius
Dr. Alan S. Meyer
Dr. Lester H. Mick
Dr. Louis M. Mick
Dr. & Mrs. Donald E. Mielke
Dr. Robert K. Milkey
Dr. Richard V. Milks
Dr. Joseph A. S. Millar
Dr. Eugene J. Miller
Dr. & Mrs. J. Wilson Miller
Dr. & Mrs. Lloyd E. Miller
Dr. & Mrs. Jack Mindell
Dr. Solomon S. Mirin
Dr. Walter H. Mitchell
Dr. Lloyd E. Moore
Dr. Lee A. Morgan
Dr. & Mrs. Gordon G. Morrow
Dr. Hugh R. Mouat
Dr. Clifford G. Muddell
Dr. & Mrs. John D. Murray
Dr. Thomas C. Murray

VETERINARIANS (Cont.)

- Dr. Harvey W. Myers
 Dr. Paul J. Myers
 Dr. & Mrs. Wilbur W. Myers
 Dr. Carl D. Nelson
 Dr. & Mrs. Robert C. Nelson
 Dr. Donald J. Newman
 Dr. Louis E. Newman, III
 Dr. R. Calvin Newman
 Dr. Wright T. Newton
 Dr. Louis O. Nezvesky
 Dr. Robert W. Nichols
 Dr. Daniel H. Nielson
 Dr. Bernard J. Nilles
 Dr. & Mrs. Arthur F. North, Jr.
 Dr. & Mrs. John A. North
 Dr. & Mrs. Ronald G. North
 Dr. Robert E. Norton
 Dr. Edward J. Nowak
 Dr. Jack D. Noyes
 Dr. H. Grey Nurse
 Dr. W. Howard Nurse
 Dr. Charles W. Nydam
 Dr. Roy H. Ohlhorst
 Dr. Keith M. Olin
 Dr. Richard C. Olmstead
 Dr. Sigurd F. Olsen
 Dr. Philip C. Olson
 Dr. Raymond F. Olson
 (In Memory of Dr. Marie Koenig Olson)
 Dr. Russell B. Oppenheimer
 Dr. Herbert I. Ott
 Dr. O. Arthur Paavola
 Dr. Joseph E. Paddock
 Dr. Raymond G. Pahle
 Dr. Ants Pallop
 Dr. Halsey R. Palmer
 Dr. Lynn G. Palmer
 Dr. Gerald W. Parker
 Dr. Philip T. Parker
 Dr. L. S. Parris
 Dr. Reginald G. Parris
 Dr. Byron W. Parsons
 Dr. Robert E. Patterson
 Dr. Chester W. Paulus, Jr.
 Dr. Jerome Payton
 Dr. John W. Peace, Jr.
 Dr. Richard C. Pearce
 Dr. Donald E. Peddie
 Dr. James F. Peddie
 Dr. Linda Reeve Peddie
 Dr. Paul H. Pelham
 Dr. E. Raymond Penhollow
 Dr. Emil E. Perona
 Dr. Willard D. Persson
 Dr. John T. Peters
 Dr. Paul A. Peterson
 Dr. Roy H. Peterson
 Dr. Gordon F. Phillips
 Dr. Seeley M. Phillips
 Dr. Webster V. Phillips
 Dr. William B. Platt
 Dr. Michael L. Podolin
 Dr. L. Richard Poggi
 Dr. Peter V. Poggi, Jr.
 Dr. Samuel Pollock
 Dr. Ralph Povar
 Dr. Frank R. Powell
 Dr. Raymond S. Pray
 Dr. John S. Proper
 Dr. Donald W. Pulver
 Dr. C. Barry Quinn
 Colonel Harry Radcliffe
 Dr. Edwin L. Rague
 Dr. Robert A. Rands
 Dr. Franklin W. Rapp
 Dr. Jack D. Rasmusson
 Dr. Milton Regenbogen
 Dr. James S. Reid
 Dr. Joseph P. Renaldo
 Dr. John W. Rich
 Dr. Charles C. Rife
 Dr. Carleton B. Ring
 Dr. Jerome H. Ripps
 Dr. Andrew S. Ritter
 Dr. James Robbin
 Dr. Joseph H. Robbins
 Dr. Fred J. Roberts
 Dr. Irving M. Roberts
 Dr. Kent C. Roberts
 Dr. Richard M. Roberts
 Dr. & Mrs. Stephen J. Roberts
 Dr. Charles R. Robinson
 Dr. Elmer L. Robinson
 Dr. John W. Robinson
 Dr. Stewart R. Rockwell
 Dr. Muriel Osgood Roe
 Dr. LeRoy S. Roemer
 Dr. & Mrs. John C. Roemmelt, III
 Dr. Edward A. Rogoff
 (In Memory of Mrs. Claire Siegal)
 Dr. R. Gary Roop
 Dr. & Mrs. Bernard W. Rosen
 Dr. James H. Rosenberger
 Dr. Herbert J. Rosenoff
 Dr. Simeon Ross
 Dr. William E. Roy
 Dr. & Mrs. Alden H. Russell
 Dr. Raymond Russo
 Dr. Maurice H. Ryan
 Dr. Gerald J. Sacks
 Dr. Herbert M. Salm
 Dr. Arnold K. Samter
 Dr. & Mrs. Charles W. Sanderson
 Dr. Thomas I. Sanford
 Dr. Frederick P. Sattler
 Dr. Burton Saunders
 Dr. James R. Saunders, Jr.
 Dr. Milton R. Sause

VETERINARIANS (Cont.)

- Dr. Joseph P. Sayres
 Dr. Norman Sax
 Dr. Jeremiah H. Sbarra
 Dr. Judith L. Scanlan
 Dr. Albert Schaffer
 Dr. Arthur E. Scheld
 Dr. Carl L. Schenholm
 Dr. Carmen S. Scherzo
 Dr. Harry Schiller
 Dr. Louis C. Schimoler
 Dr. Paul J. Schloeder
 Dr. Milton D. Schmutz
 Dr. Paul G. Schneible
 Dr. Joachim A. Schneider
 Dr. Ralph S. Schoemann
 Dr. Eugene Scholtz
 Dr. George D. Schoonmaker
 Dr. Raymond J. Schuerger
 Dr. Frederick W. Schutz
 Dr. Lester M. Schwab
 Dr. Alvin F. Schwartz
 Dr. Victor J. Schwartz
 Dr. Stephen H. Schwirck
 Dr. Wilbur P. Schwobel
 Dr. Saul B. Seader
 Dr. Alec C. Sears
 Dr. John N. See
 Dr. Gene W. Sellick
 Dr. Joseph C. Shaffer
 Dr. & Mrs. Lawrence M. Sherman
 Colonel Louis L. Shook
 Dr. Joseph G. Shute
 Dr. M. Christine Sidler
 Dr. Morris Siegel
 Dr. Harrison B. Siegle
 Dr. Eric W. Simmons
 Dr. Norman Simon
 Dr. Norman E. Skinner
 Dr. Alcott L. Smith
 Dr. Arthur L. Smith
 Dr. Ernest K. Smith
 Dr. Lewis L. Smith
 Dr. Richard A. Smith
 Dr. Richard S. Smith
 Dr. Thomas V. Sollas, Jr.
 Dr. Brian Sorrell
 Dr. Harry E. Spink
 Dr. David Splaver
 Dr. Isidor J. Sprecher
 Dr. E. Hugh Sproston
 Dr. Earl P. Stallings
 Dr. Donald J. Steed
 Dr. Rudolph J. Steffen
 Dr. George Stein, Jr.
 Dr. Herman B. Stein
 Dr. John B. Steiner
 Dr. Edward F. Steinfeldt
 Dr. Alfred C. Steinhoff
 Dr. Dale R. Stephenson
 Dr. & Mrs. Hadley C. Stephenson, R.P.
 (In Memory of Dr. Clayton E. DeCamp
 and Dr. Benjamin J. Finkelstein)
 Dr. Edward W. Stewart
 Dr. Phillip B. Stewart
 Dr. Sidney W. Stiles
 Dr. Robert S. Stoll
 Dr. Earle C. Stone
 Dr. & Mrs. Garland D. Stone
 Dr. Richard L. Stone
 Dr. Robert M. Stone
 Dr. John J. Strickler
 Dr. Joseph Stuart
 Dr. Hugh P. Studdert
 Dr. & Mrs. William A. Sumner
 Dr. Johanna Asmus Sutorius
 Dr. Charles R. Swearingen, Jr.
 Dr. Roman A. Swiezy
 Dr. Raymond E. Sytek
 Dr. & Mrs. Frank J. Tanneberger
 Dr. Emanuel Tarlow
 Dr. B. Dale Tarr
 Dr. David H. Taylor
 Dr. Donald O. Taylor
 Dr. Theodore F. Taylor
 Dr. William E. Taylor
 Dr. Jerome A. Theobald
 Dr. Cornelius Thibeault
 Dr. Joseph A. Thomas
 Dr. Robert W. Thomas
 Dr. Gerald Tobias
 Dr. Wayne E. Tremper
 Dr. Billy T. Trimmier
 Dr. Robert D. Trowbridge
 Dr. & Mrs. Edgar W. Tucker
 Dr. & Mrs. Homer G. Tully
 Dr. Benjamin F. Turner
 Dr. J. Richard Twedde
 Dr. Peter W. Ucko
 Dr. Calvin B. Umble
 Dr. John L. Van Aken
 Dr. John F. Van Vleet
 Dr. & Mrs. Thurman C. Vaughn, Jr.
 Dr. Charles D. Vedder, Jr.
 Dr. R. Frank Vigue
 Dr. George D. Vineyard
 Dr. Bryant C. Vinson
 Dr. Allan A. Vogel
 Dr. Rikki von Decken-Luers
 Dr. & Mrs. Robert M. Wainwright
 Dr. Robert D. Walker, R.P.
 Dr. Thomas W. Wanous
 Dr. John A. Ward
 Dr. Lewis E. Watson
 Dr. Walter D. Way
 Dr. Howard O. Weber
 Dr. Donald E. Webster
 Dr. Charles W. Weinberg
 Dr. & Mrs. Henry C. Weisheit

VETERINARIANS (Cont.)

Dr. & Mrs. Leonard Weiss
 Dr. Stanley Weissman
 Dr. Raymond A. Weitkamp
 Dr. Robert O. Wentz
 Dr. William J. Wescott
 Dr. Donald A. Westee
 Dr. Ralph F. Wester
 Dr. William B. Wetmore
 Dr. & Mrs. James R. Wheaton
 Dr. Robert P. Whitaker
 Dr. Howard S. White
 Dr. John W. Whitefield
 Dr. John E. Whitehead
 Dr. Roland E. Whitehead
 Dr. & Mrs. Robert Whitlock
 Dr. George D. Whitney
 Dr. Bruce W. Widger
 Dr. & Mrs. Kenneth R. Wilcox
 Dr. Jack E. Wilkes
 Dr. Paul H. Wilkes
 Dr. Ernest H. Willers
 Dr. Kerry Willetts
 Dr. Jane L. Williamson
 Dr. Jean T. Wilson
 Dr. John L. Wilson
 Dr. Patricia C. Wing

Dr. Edward P. Winnick
 Dr. Erwin B. Winokur
 Dr. & Mrs. R. George Wiswall
 Dr. Stanley A. Witzel
 Dr. Martin Wolf
 Dr. & Mrs. David A. Wolfe
 Dr. Armour C. Wood
 Dr. Leonard Wood
 Dr. Lemuel W. Woodworth
 Dr. Daniel T. Woolfe
 Dr. Raymond W. Worley
 Dr. Alan W. Wright
 Dr. Roy L. Wright
 Dr. & Mrs. Leo A. Wuori
 Dr. David E. Wyatt
 Dr. Isidor Yasgur
 Dr. Ray S. Youmans, Jr.
 Dr. Charles G. Ziegler
 Dr. & Mrs. Irving Zimmerman
 Dr. Manuel Zimmerman
 Dr. Theodore Zimmerman
 Dr. William Zitek
 Dr. William J. Zontine
 Dr. Edward A. Zullo
 Dr. Carl L. Zymet

VETERINARY ASSOCIATIONS

The Buffalo Academy of Veterinary
 Medicine (In Memory of Dr. Marie
 Koenig Olson)
 Catskill Mountain Veterinary Medical
 Association
 Central New York Veterinary Medical
 Association
 Chautauqua County Veterinary Society
 (In Memory of Mr. Merlin D. Jones
 and Mr. Herman J. Palmer)
 Finger Lakes Veterinary Medical
 Association
 Hudson Valley Veterinary Medical
 Society, Inc.
 Long Island Veterinary Medical
 Association, Inc.
 (In Memory of Dr. Harry A. Lutvack
 and Dr. Thomas E. Hickey)
 Onondaga County Veterinary Medical
 Association
 (In Memory of Mr. Robert "Deacon"
 Doubleday)

Southern Tier Veterinary Medical
 Association
 (In Memory of Dr. Clayton E. DeCamp)
 Veterinary Medical Association of
 New York City, Inc.
 (In Memory of Dr. Victor Spevack)
 Westchester-Rockland Veterinary Medical
 Association
 Western New York Veterinary Medical
 Association, Inc.
 Women's Auxiliary to the New York
 State Veterinary Medical Society
 (In Honor of Mrs. Margaret Lopez)
 Women's Auxiliary to the Veterinary
 Medical Association of New York City,
 Inc.

FOUNDATIONS AND TRUSTS

H. R. Briggs Fund	Richard King Mellon Foundation
The Corning Glass Works Foundation	James A. McDonald Foundation
F. A. Daniels Fund	(In Memory of Mrs. Leonard W. Bonney)
Mason C. Davidge Fund	The Merck Company Foundation
The Gaylord Donnelley Foundation	W. H. Morton Foundation
The Caleb C. & Julia W. Dula Educational and Charitable Foundation	John M. Olin Foundation
The Firman Fund	Spencer T. & Ann W. Olin Foundation
General Foods Fund, Inc.	The Polak Foundation
The Walnut Hall Foundation	W. H. Porter Fund
Heymann-Wolf Foundation	Martha Potter Fund
INA Foundation	Schering Foundation, Inc.
The Josten Fund, Inc.	The Sempliner Foundation
Walter Kendall Trust	Ruth A. Slaughter Estate
The Klee Fund, Inc.	Stony Wold Corporation
The Seymour H. Knox Foundation, Inc.	M. S. Weatherbee Fund
The C.A.L. Foundation	Whitehall Foundation
Lakeside Foundation	The Robert Winthrop Trust
The Louise Foundation	Woodstock Foundation

COMPANIES

Agway, Inc.	Kal Kan Foods, Inc.
Allen Products Company	Med-Tech, Inc.
Buckshire Corporation	Orchard Park Boarding Kennel, Inc.
Burroughs Welcome & Company, Inc.	(In Honor of all Veterinarians on the Niagara Frontier)
Country Wide Publications, Inc.	Pitman-Moore Co.
Dog World Distemper Fund	Standard Brands, Incorporated
Fort Dodge Laboratories, Inc.	Veterinaria AG, Zurich
The Gaines Dog Research Center	
Hazelton Research Animals, Inc.	



Top—The Finger Lakes Kennel Club, meeting in the Library of the Dog Laboratory, presents a check for \$500 to Dr. Baker. Shown in the above photograph are Mr. Fiore, President of the Club, Mrs. Speed, Secretary, Dr. Fisher, founder of the Finger Lakes Club, Mrs. Hammond, Program Director, Mrs. Redline, Treasurer, and Dr. Baker.

Right—President Abe Koblantz, of the Albany, N. Y. Kennel Club, shows continuous support and approval of work at the Dog Laboratory by presenting their check for \$500 to Dr. James A. Baker.



Bottom—In honor of Dr. Bernard Nilles (Cornell '66), the Sand and Sea Kennel Club Inc., of New Jersey, presents him with a check for \$500 for transmission to the Dog Laboratory at Cornell. Shown in the photograph are Mrs. Morrison, Dr. Nilles, Mrs. Taylor, Mrs. Sutton, and Mr. Hall.



HUNTS AND CLUBS

Clubs designated by * contributed since September 1, 1970 from \$100 to \$400; designated by ** from \$500 to \$900; designated by *** \$1000 or over.

- *Albany Kennel Club, Inc.
- *Allentown Dog Training Club, Inc.
(In Memory of Mrs. Jean Hunsicker)
- *American Boxer Club, Inc.
- American Chesapeake Club
- American Sealyham Terrier Club
- American Shetland Sheepdog Association
- *Annapolis Kennel Club, Inc.
(In Honor of Dr. Walter H. Mitchell and Dr. William L. Hufford)
- ***Atlanta Kennel Club, Inc.
- Basset Hound Club of America, Inc.
- *Bedlington Terrier Club of America, Inc.
- Boston Terrier Club of America
(In Memory of Mrs. Mary E. Martin)
- *The Bronx County Kennel Club, Inc.
- The Cairn Terrier Club of America
- California Airedale Terrier Club
- Capital Dog Training Club of Washington, D.C.
- *The Catonsville Kennel Club, Inc.
- Central New York Kennel Club, Inc.
- Central Ohio Kennel Club
- *The Charleston Kennel Club, Inc.
- *Collie Club of America, Inc.
- *Conejo Kennel Club
- Connecticut-Westchester Cocker Spaniel Club
- *Cornhusker Kennel Club, Inc.
- *The Dachshund Club of America
- Dayton Dog Training Club, Inc.
- Detroit German Shepherd Dog Obedience Training Club, Inc.
- Dog Owner's Training Club of Maryland, Inc.
- **Elmira Kennel Club, Inc.
- *The Dan Emmett Kennel Club
- The Eastern Irish Setter Association, Inc.
- Erie Kennel Club, Inc.
- **Finger Lakes Kennel Club
- *The Genesee Valley Kennel Club, Inc.
- German Shepherd Dog Club of Greater Kansas City, Inc.
- German Shepherd Dog Club of St. Louis, Inc.
- German Shepherd Dog Club of Wisconsin, Inc.
- Gordon Setter Club of America
(In Memory of Mr. Arelyn Thurston)
- Great Dane Club of California, Inc.
- Great Dane Club of Northern California, Inc.
- Hudson Valley Poodle Club
(In Honor of Dr. Warren W. Mead)
- *Hunterdon Hills Kennel Club
- Huntsville Obedience Training Club
- Irish Setter Club of Western N. Y.
- Irish Wolfhound Club of America
- Iroquois German Shepherd Dog Club, Inc.
(In Memory of Miss Marie J. Leary)
- Kanadasaga Kennel Club, Inc.
- *K-9 Obedience Training Club of Essex County, N.J., Inc.
- *Kennel Club of Buffalo, Inc.
- Kern County Kennel Club, Inc.
- Knockcross Kennels
- Ladies Kennel Association of America
- Long Island Kennel Club
- The Marion Kennel Club, Inc.
- McKinley Kennel Club, Inc.
- Merrimac Dog Training Club
- Middleburg Hunt
- Mid-West Borzoi Club
- Midwest Field Trial Club, Inc.
- Minnesota Field Trial Association, Inc.
- Mississippi Valley Kennel Club
- National Amateur Retriever Club, Inc.
- *National Retriever Club, Inc.
- **National Retriever Field Trial Club, Inc.
- New Jersey Boxer Club
(In Honor of Dr. Arthur A. North, Jr.)
- New Mexico Kennel Club
- *New Trier Dog Training Club
- North Shore Kennel Club, Inc.
- Northern Illinois St. Bernard Club
- Northern Kentucky Kennel Club, Inc.
(In Honor of Dr. Earl W. Lohmeier)
- *Norwegian Elkhound Association of America
- *The Norwich Terrier Club
(In Memory of Mr. Alden S. Blodgett)
- Obedience Training Club of Palm Beach County, Inc.
- Old Pueblo Dog Training Club, Inc.
- *Olympic Kennel Club, Inc.
- Oshkosh Kennel Club
- *Ox Ridge Kennel Club
- *Pekingese Club of America, Inc.
- *Penn Ridge Kennel Club, Inc.
- Piedmont Kennel Club
- Port Chester Obedience Training Club
- *The Putnam Kennel Club, Inc.
- Rogue Valley Retriever Club

HUNTS AND CLUBS (Cont.)

- | | |
|---------------------------------------|---|
| Rombout Hunt | Syracuse Obedience Training Club |
| *Sagehen's Retriever Club | ***Thronateeska Kennel Club |
| San Antonio Kennel Club, Inc. | Toledo Kennel Club, Inc. |
| San Francisco Dog Training Club, Inc. | *Tonawanda Valley Kennel Club, Inc. |
| **Sand and Sea Kennel Club, Inc. | *Trenton Kennel Club |
| *Saw Mill River Kennel Club, Inc. | Trumbull County Kennel Club, Inc. |
| *Siberian Husky Club of America | *Ulster Dog Training Club, Inc. |
| Somerset County Dog Obedience Club | United States Kerry Blue Terrier Club, Inc. |
| ***Somerset Hills Kennel Club | Washington State Cocker Spaniel Club |
| *South Shore Dog Training Club, Inc. | (In Memory of Mrs. Marion Changers) |
| South Texas Obedience Club | *Western Reserve Kennel Club, Inc. |
| *Spartanburg Kennel Club | |
| Sussex Hills Kennel Club, Inc. | |

In establishing the Institute, of which the Cornell Research Laboratory for Diseases of Dogs is a part, the Board of Trustees authorized the Treasurer's Office of Cornell University to act as custodian of all funds given in support of the Institute. Donors, therefore, are assured of maximum benefit from their gifts by this supervision of Cornell University officials. Cornell welcomes any gifts or bequests that will help the work of the Institute. All checks should be made payable to Cornell University, and should be mailed to:

Office of the Director
 Veterinary Virus Research Institute
 Veterinary College
 Cornell University
 Ithaca, N. Y. 14850